#1647

PTO/SB/21 (12-97)

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TRANSMITTAL FORM

(To be used for all correspondence after initial filing)

Application Number	09/786,926
Filing Date	May 4, 2001
First Named Inventor	Markus Graler
Group Art Unit	1647
Examiner Name	Bridget E. Bunner
Total Number of Pages in This Submission	Attorney Docket Number: 101195-45

ENCLOSURES (*check all that apply*)

☐ Fee Transmittal Form ☐ Fee Attached	☐ Assignment Papers *(for an Application)*	☐ After Allowance Communication to Group
☐ Amendment / Response ☐ After Final	☐ Drawing(s)	☐ Appeal Communication to Board of Appeals and Interferences
☐ Affidavits/declaration(s)	☐ Licensing-related Papers	☐ Appeal Communication to Group *(Appeal Notice, Brief, Reply Brief)*
☒ Extension of Time Request	☐ Petition	☐ Proprietary Information
☐ Express Abandonment Request	☐ To convert a Provisional Application	☐ Status Letter
☐ Information Disclosure Statement	☐ Power of Attorney, Revocation Change of Correspondence Address	☒ Additional Enclosure(s) -(please identify below):
☐ Certified Copy of Priority Document(s)	☐ Terminal Disclaimer	return receipt postcard
☐ Response to Missing Parts/ Incomplete Application	☐ Small Entity Statement	
☒ Response to Missing Parts under 37 CFR 1.52 or 1.53	☐ Request for Refund	
	Remarks:	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm *or* Individual name	**Theodore A. Gottlieb** **NORRIS McLAUGHLIN & MARCUS, P.A.**
Signature	**Reg. No. 42,597**
Date	October 1, 2002

CERTIFICATE OF MAILING

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Typed or printed name	Vilma I. Fernandez		
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Atty's Docket No. 101195-45

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Vilma I. Fernandez

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : Markus Graler et al.
Serial No. : 09/786,926
FILED : May 4, 2001
EXAMINER : Bridget E. Bunner
ART UNIT : 1647
FOR : Human and Murine G-protein-coupled Edg6 Receptor (Endothelial Differentiation Gene) and Use of Same

RESPONSE TO RESTRICTION REQUIREMENT AND ONE MONTH EXTENSION OF TIME

Hon. Assistant Commissioner of Patents
Washington, D.C. 20231

October 1, 2002

Sir:

This communication is in response to the Office Action of August 19, 2002.

Entry of the amendments and consideration of the remarks is respectfully solicited.

IN THE CLAIMS

Amend claims 1 and 2 as follows:

B1

1. (Amended) The G-protein coupled receptor EDG6 of claim 21, having a sequence according to SEQ ID NO 1.

2. 2. (Amended) The G-protein coupled receptor EDG6 of claim 21, having a sequence according to SEQ ID NO 4.

Add new claim 21 as follows:

B2

21. (amended) A mammalian G-protein coupled receptor EDG6 selected from the group consisting of SEQ ID NO 1 and SEQ ID NO 4.

add C2

CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Applicants request that this be considered a petition therefore. Please charge the required fee to Deposit Account No. 14-1263.

ADDITIONAL FEES

Please charge any further insufficiency of fees, or credit any excess to Deposit Account No. 14-1263.

REMARKS

Claims 1-20 are in the application. The claims have been subjected to a 7-way restriction requirement.

Applicants elect Group I, comprising claims 1, 3-4, and 12-13 with traverse. Specifically, Applicants respectfully request that the restriction between Groups I and II be withdrawn in view of the following remarks.

Examiner's rationale for the above restriction is that, e.g., Group I and Group II "lack the same or corresponding special technical features." The only basis for this conclusion is that Group I is to a human receptor and Group II is to a murine protein. Further, it is asserted that the technical features of Group I and II are not "required by the other products." In other words, the murine and human receptor do not share technical features that are required by both receptors.

Applicants hereby traverse the restriction requirement and respectfully urge reconsideration and withdrawal of the restriction between Groups I and II. Applicants respectfully disclose why it is believed that Examiner's rationale for this restriction is incorrect and is apparently predicated on an improper definition of the phrase *special technical feature*.

ANNEX B of the PCT defines special technical features under PCT Rule 13.2 as "those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art." MPEP, p. AI-53 (Emphasis added). Further, "the determination is made on the contents of the claims as interpreted in light of the description and drawings." Id. (Emphasis added). It is respectfully suggested that Examiner has not followed these guidelines.

The main basis for Examiner's restriction of Groups I and II is that they are derived from different organisms, human and mouse.

Being derived from mouse and human is NOT a special technical feature under PCT practice. Under PCT practice, a technical feature relates to the elements of the physical embodiments of the inventions. Thus, the restriction requirement between Groups I and II is improper on its face and should be withdrawn.

In addition, the specification and drawings indicate that the proteins of SEQ IDS NO 1 and 4 have virtually identical biological and biochemical properties and at least 88% identity of structure.

For example Figure 1 shows the transmembrane disposition of the receptor. The orientation of a membrane protein is known in the art, to be attained spontaneously during the nascent peptide's cotranslational insertion through the lipid bilayer of the endoplasmic reticulum. This orientation must be attained by both human and mouse because of [a] the high degree of structural similarity, and [b] the necessity of this orientation to act as a G-protein coupled signal tranducer. Thus, e.g., extracellular and cytoplasmic domains of the human and mouse proteins are involved in the recognizing and transducing the same signals across the plasma membrane.

Further, Applicants point out on page 3, 3rd paragraph, that a homology search based on the human cDNA sequence indicated the existence of a previously reported partial cDNA (i.e.,EST). This incomplete sequence was of murine origin, and showed 88%

homology to the human sequence of SEQ ID NO 2. This partial sequence was used to obtain the full length murine cDNA and translated sequence of SEQ ID NOS 3 and 2 respectively.

Applicants further disclose on page 4, 3rd paragraph, that the receptor has high homology with the human receptor. Thus, there are several technical features manifested and shared between the claims of Group I and II . These features have been evolutionarily conserved as indicated by the fact that these proteins demonstrate the same tissue-specific pattern of expression in mouse and human tissues. Id.

Accordingly, the mouse and human receptors are almost identical in structure, function and tissue specificity. It is wholly improper to ignore these disclosures to determine the presence of special technical features, and instead, rely merely on their species of origin.

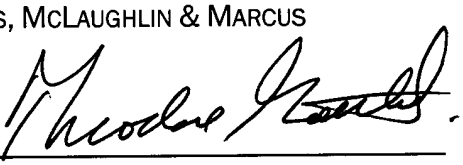
CONCLUSION

In sum, Applicants respectfully suggest that in view of the foregoing remarks Examiner is fully justified in withdrawing the restriction requirement as applied to Group I and Group II.

Applicants have added new claim 21 as a proper generic claim to claims 1 and 2, and thus, Groups I and II.

Applicants respectfully request that the claims are in condition for allowance.

Respectfully submitted,
NORRIS, MCLAUGHLIN & MARCUS



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MARK-UP OF AMENDED CLAIMS

1. (Amended) The ~~Human~~ G-protein coupled receptor EDG6 of claim 21, having a sequence ~~with the~~ according to SEQ ID NO 1 ~~sequence 1 as well as its fragments, variants and mutations~~.

2. 2. (Amended) The ~~Murine~~ G-protein coupled receptor EDG6 of claim 21, having a sequence according to SEQ ID NO 4 ~~sequence 1 as well as its fragments, variants and mutations~~.